WISCONSIN AIR TOXICS RULES

INCIDENTAL EMITTER FACT SHEET

[NR445.11]

The State of Wisconsin regulates emissions of air toxics to protect people from inhalation exposure to pollutants known or suspected to cause cancer, or known to cause health effects such as asthma and other respiratory damage, kidney and heart failure, infertility, and birth defects.

Wisconsin air toxics rules apply to *every* facility in Wisconsin with air emissions. Facilities must determine whether or not they emit air toxics and if so, quantify their emissions, and reduce or control their emissions where necessary. The 2003 rule revisions narrow the scope of the rule for sources of "incidental emissions" by limiting their compliance requirements to certain processes that are known to produce air toxic emissions and to a subset of substances of special concern.

WHAT IS A SOURCE OF INCIDENTAL EMISSIONS?

An Incidental Emitter is a facility that is expected to have minimal, if any, emissions of air toxics. The Incidental Emitter category includes most non-manufacturing sectors and manufacturers that have limited emissions of Particulate Matter (PM) ***and*** Volatile Organic Compounds (VOCs).

Incidental Emitters are able to determine their regulatory requirements more quickly and easily because the rule focuses their responsibilities on processes and substances that are of special concern, either because they are widely used or because the emissions are extremely hazardous.

Incidental Emitters must comply with all applicable requirements, but only for the limited list of substances and processes. These requirements include compliance with NR 445 emission standards as well as permitting and emission inventory reporting requirements.

Once a facility determines it is an Incidental Emitter it should take the following steps:

1. Determine whether the facility has emissions that are covered under the Incidental Emitter regulations.
2. Determine whether the emissions exceed the emissions standards.
3. Take action to reduce emissions, if necessary.
4. Certify compliance with standards, if necessary.
5. Determine need for air permit and follow through with applicable requirements.
6. Determine air emission inventory reporting requirements and follow through with applicable requirements.

DETERMINING STATUS: IS FACILITY AN INCIDENTAL EMITTER?

Your facility is an Incidental Emitter if it meets either criteria 1 or criteria 2:

1. Its primary business activity, as described by its SIC code, is listed in Table D. Table D includes most non-manufacturing SIC codes. *[Appendix A]*

Or

2. It has actual annual emissions of:
   - PM less than 5 tons per year (tpy),

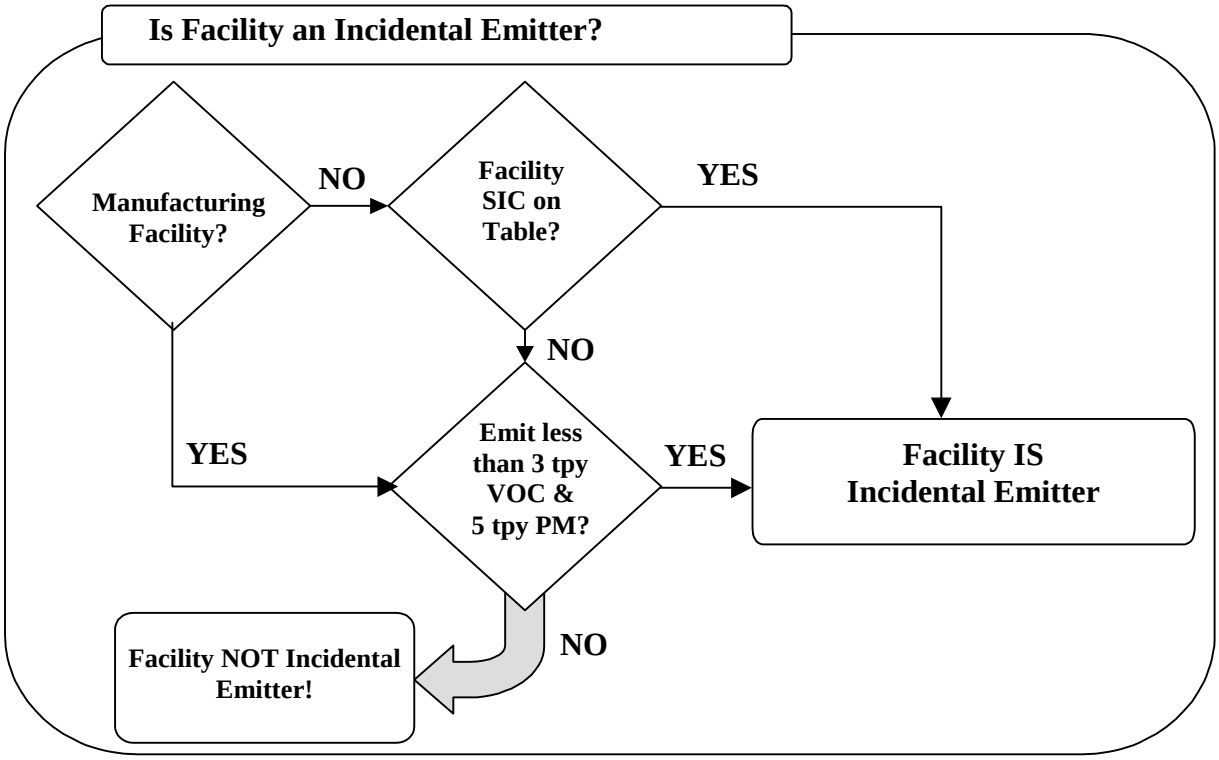
   and

   - VOCs less than 3 tpy.

   [See Appendix B for information on calculating emissions]

If your facility meets neither of these criteria, you are NOT an Incidental Emitter and must follow the normal procedures for determining your regulatory requirements under NR 445.

If your facility meets either of these criteria, you may follow the Incidental Emitter procedures for determining your air toxics regulatory requirements.



If facility **does no manufacturing** it is an Incidental Emitter if
Either
- SIC is on Table D,

Or
- PM / VOC emission are below thresholds

If facility **does manufacturing**, it is an Incidental Emitter if
- PM / VOC emissions are below thresholds.

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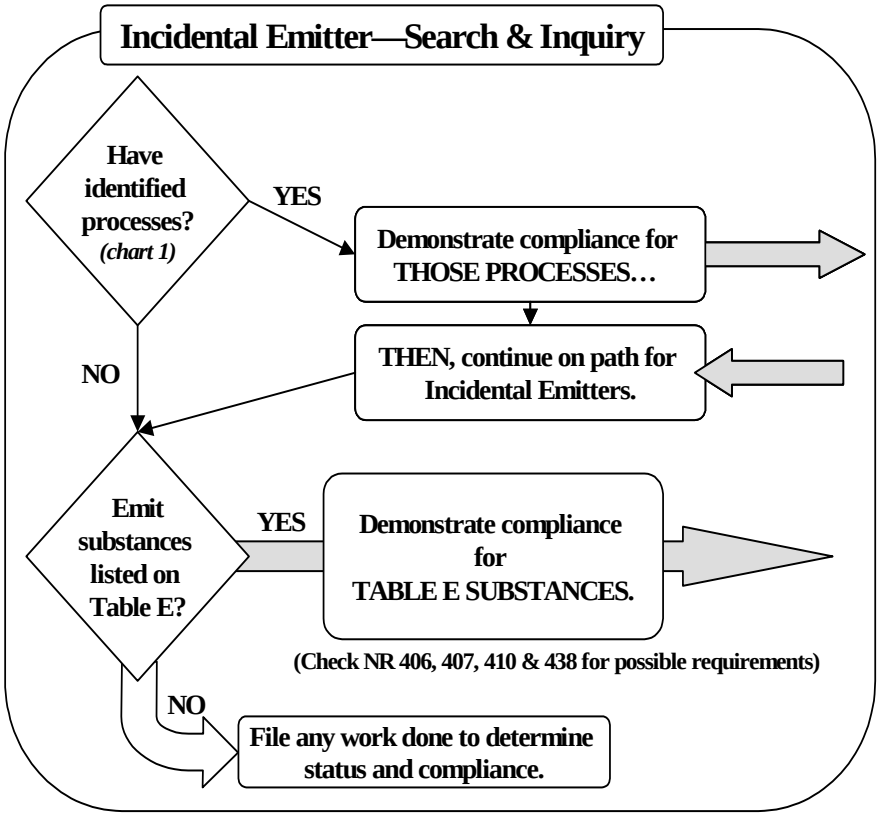
SEARCH & INQUIRY:
PROCEDURE FOR INCIDENTAL EMITTERS

The first step is to determine whether the facility has air toxic emissions that are covered under the Incidental Emitter regulations. The facility does this by checking both the list of processes and the list of substances.

☑ *1.* Check for identified Processes of Concern, and comply with requirements as indicated *[see table below]*

☑ 2. Search for a limited list of Substances of Concern and comply with emission standards. *[See Appendix C]*



Processes with Requirements Specified for Incidental Emitters

Process	Specified Requirement
Compression ignition internal combustion engine(s) with rated brake power greater than 100 horsepower used as a power source *(usually diesel generators)*	Meet applicable requirements in NR 445.09 ***for that process***
Any expected source of chlorinated dioxins, furans or PCBs	Meet applicable requirements in NR 445.07(1) for any hazardous air contaminants listed in **Table A *for that process***
Sludge Incineration	
Chrome electroplating	
Gasoline dispensing	
Manufacture, treatment or disposal of a pesticide, rodenticide, insecticide, herbicide or fungicide resulting in an emission to the atmosphere	Meet applicable requirements in NR 445.07(2) for any hazardous air contaminants listed in **Table B *for that process***
Manufacture, treatment or disposal of a pharmaceutical resulting in an emission to the atmosphere	Meet applicable requirements in NR445.07(3) for any hazardous air contaminants listed in **Table C *for that process***
Solid, hazardous or medical waste incineration	Meet applicable requirements in NR 445.07(4) ***for that process*** (**Tables A, B, and C**)

*Tables A, B & C are tables of air toxics found in NR445. Each includes emission thresholds and standards, and control requirements and/or acceptable ambient air concentrations where applicable.

Substances of Concern

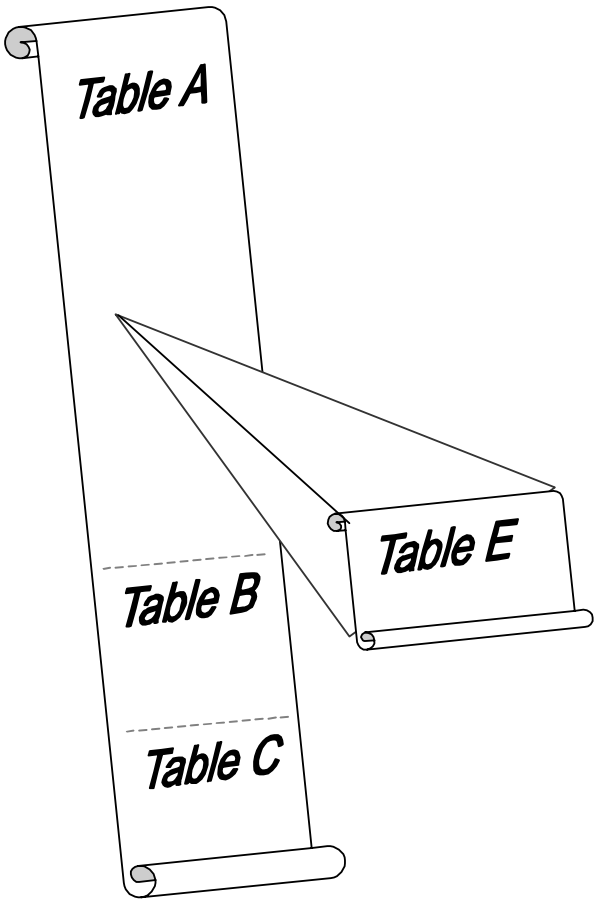
Table E is a subset of Table A. It lists 81 substances that are of particular concern either because they are extremely hazardous to human health or because they are air toxics that are commonly emitted by facilities in Wisconsin.

If an Incidental Emitter emits a Table E substance, it must meet the applicable requirements in NR 445.07(1) for that substance. These are the same requirements that other emission sources of these air toxics must meet. The emission thresholds and standards for the substance are listed in Table A.

NEXT STEPS…

After a facility has identified its air toxic emissions, the next steps are to:

- Quantify potential emissions
- Compare potential emissions to NR445 table thresholds
- If potential emissions are over table thresholds:
  - Choose compliance options
  - Certify compliance
  - Keep records
  - Determine whether a permit is needed (NR406/NR407).
  - Determine whether it needs to report its air toxic emissions to the Air Emissions Inventory (NR438).
- If potential emissions are equal to or under the table thresholds:
  - Keep records
- If the facility has an operation permit and reportable emissions, it will be subject to the annual emission fee (NR410).



For Assistance Contact:

●**WI-Department of Natural Resources**
Air Program; Environmental Analysis Section
phone: 608/266-7718
Website:
http://dnr.wi.gov/org/aw/air/staff/newsections.htm

● **WI-Department of Commerce,**
Small Business Clean Air Assistance Program (SBCAAP); Clean Air Specialists:
Renee: 608/264-6153
Tom: 608/267-9214
Website: commerce.wi.gov/sbcaap

●**University of Wisconsin Extension,**
Solid & Hazardous Waste Education Center (SHWEC)
Phone: 608-262-0385
Website: www.uwex.edu/shwec/

Or: http://wip2.uwex.edu/

APPENDIX A

SIC CRITERIA (APPLY THIS CRITERIA IF FACILITY DOES NO MANUFACTURING)

☑ If your facility does no manufacturing, you must determine if its SIC is included in Table D. If included, then it IS an Incidental Emitter. If it is not included, then determine if facility meets the *emissions* criteria for Incidental Emitters.

DETERMINING YOUR STATUS

Example 1—Not a Manufacturer
ABC Corporation is a financial institution. It does no manufacturing, so checks its 2-digit SIC, "60", against Table D. Since its SIC of 60 is included on Table D as a source of Incidental Emissions, ABC Corp qualifies as an Incidental Emitter of air toxics.

Example 2—Not a Manufacturer, and SIC Not on Table D
An automotive repair shop, CAR Inc. does no manufacturing, so it checks its SIC, "753," against Table D. This SIC is NOT included on Table D as a source of Incidental Emissions—it is listed as an exception to the 70-89 SIC range. Therefore CAR Inc. must check to see if it meets the emissions criteria for Incidental Emitters.

CAR Inc. calculates its actual annual emissions of VOCs & PM. It emits 1 tpy PM (less than the 5 tpy threshold) and 2 tpy VOCs (less than the 3 tpy threshold.)

CAR Inc. is an Incidental Emitter because its actual emissions of BOTH PM & VOC are below the Incidental Emitter thresholds. *(See Appendix B for more information on emissions criteria.)*

Table D: SICs for Incidental Emitters of HAPs

2-Digit SIC Code or Range	SIC Title
01-09	Agriculture, Forestry and Fishing
15	General Building Contractors
17	Special Trade Contractors
40-45, 47	Transportation
48	Communications
50-51	Wholesale Trade, ***except the following***: *Coal and Other Minerals and Ores (5052)* *Scrap and Waste Materials (5093)* *Chemicals and Allied Products (516)* *Petroleum and Petroleum Products (517)*
52-59	Retail Trade
60-69	Finance, Insurance and Real Estate
70-89	Services, ***except the following*:** *Laundry, Cleaning and Garment Services (721)* *Business Services, not elsewhere classified (7389)* *Automotive Repair Shops (753)* *Miscellaneous Repair Shops (769)* *General Medical and Surgical Hospitals (8062)* *Colleges, Universities and Professional Schools (822)* *Research, Development and Testing Services (873)*

Did You Know...

Standard Industrial Classification (SIC) codes classify all industries in the U.S. economy. A two-digit code designates each major industry group, which is coupled with a second two-digit code representing subcategories.

Find your facility's SIC
A facility's SIC code should be listed on workman compensation forms. Check to ensure the SIC code listed accurately describes the facility's activities.

Further information is available at:
http://www.osha.gov/oshstats/sicser.html or
http://www.osha.gov/cgi-bin/sic/sicser5 or
http://www.census.gov/epcd/ec97brdg/
or call the DNR at 608/266-7718

UNDERSTANDING EMISSIONS CRITERIA

☑ If your facility manufactures, or its SIC is not included on Table D, you must determine if it meets the Emissions Criteria for an Incidental Emitter. Emissions of PM must be less than 5 tpy *and* emissions of VOCs must be less than 3 tpy for the facility to qualify as an Incidental Emitter.

Did You Know...

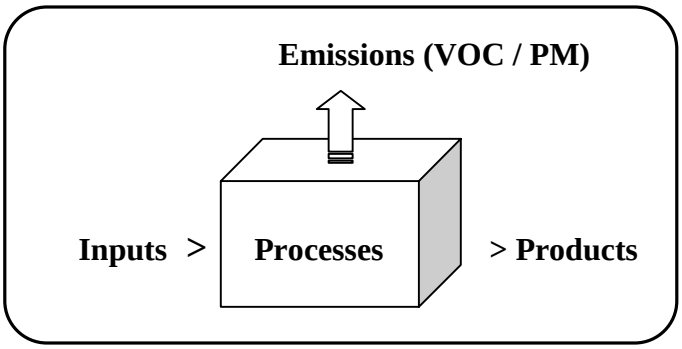
Air Emissions Inventory …
Many facilities will already know if they emit *over* three tons of VOCs or five tons of PM per year—these are the relevant reporting thresholds for the Air Emission Inventory (AEI—NR438). If a facility reports VOC or PM to the AEI, they are not below Incidental Emitter thresholds.

How do I calculate emissions of PM & VOC to determine if my facility is below the Incidental Emitter thresholds?
If your facility has not already done these calculations, you must estimate or calculate your emissions of VOC & PM.

A facility should be able to estimate if its emissions come close to exceeding the Incidental Emitter thresholds for VOC or PM using a mass balance approach.

Start with a rough estimate and add detail only as needed. If it is not obvious that emissions fall above or below the Incidental Emitter thresholds, then you should go up to the next level of detail in your estimate/calculation.

Mass Balance



Step 1: Rough Estimate
Assume everything is emitted. Quantify material inputs (including process clean up materials, etc.)

IF
Inputs less than 6000 pounds per year (or 3 tpy),

THEN
Facility is unlikely to emit over 3 tpy of anything.

STOP—You are an Incidental Emitter

Step 2: Add A Little Detail
Assume everything is emitted. Qualify your material inputs as either dry inputs or liquid inputs.

IF
PM: Dry inputs less than 10,000 lbs per year (5 tpy)
AND
VOC: Liquid inputs less than 6,000 lbs per year (3 tpy)

THEN
Unlikely to emit over PM & VOC thresholds (note: some dry materials do result in VOC emissions and some liquid materials do result in PM emissions)

STOP—You are an Incidental Emitter

Step 3: Add More Detail
Look at the weight of end products. Assume all solvents evaporate off the product.

PM:
lbs. dry inputs per year
— lbs. dry product produced per year
lbs. PM emitted per year
IF PM emitted less than 10,000 pounds per year (5 tpy), THEN check VOC (below.)

VOC:
Lbs. liquid inputs per year
x HIGHEST VOC content* (from MSDS)
lbs. VOC emitted per year

(*VOC content should be given as "percent by weight." If instead the MSDS provides "percent by volume," you will need to calculate percent by weight—For further information, see brochure *"Calculating Emissions."*)

IF
VOC emitted less than 6,000 pounds per year (3 tpy)

AND

PM (see above) less than 10,000 pounds per year (5 tpy)

THEN

STOP – You are an Incidental Emitter

Step 4: Include All Details
Calculate actual annual VOC and PM emissions using throughputs and emission factors, including emission control efficiencies where appropriate.

If actual calculated annual emissions of BOTH PM ***and*** VOCs are less than the thresholds, the facility is an Incidental Emitter.
[Actual emissions includes fugitive emissions in calculations for all processes/operations]

If either PM ***or*** VOCs exceed thresholds, the facility is NOT an Incidental Emitter.

Example—Calculating Emissions
XYZ Corp. is a manufacturer, and therefore applies the Emissions Criteria to see if it qualifies as an Incidental Emitter.

XYZ Corp. first gathers information on its inputs and outputs.

XYZ Corp. uses three inputs:
Input a = 3,000 pounds per year (liquid)
Input b = 2,000 pounds per year (dry)
Input c = 7,000 pounds per year (dry)
Total inputs = 12,000 pounds per year

Step 1: Rough Estimate: Its total inputs of 12,000 pounds exceed the 6,000 pound per year cutoff. Go to step 2.

Step 2: Add a little detail:
VOC: Its 3,000 pounds of liquid inputs fall below the 6,000 pound cutoff.
PM: Its 9,000 pounds of dry inputs are below the 10,000 pound cutoff.

It is thus likely to be an incidental emitter.

Step 3: Add more detail:
For an added margin of safety on the PM, XYZ Corp. calculates the weight of its dry output. It produces 8,000 pounds of widgets per year.

PM: Its dry inputs of 9,000 pounds per year, less its dry output of 8,000 pounds, equals 1,000 pounds, far below the 10,000 pound per year threshold.

XYZ Corp. clearly qualifies as an Incidental Emitter.

APPENDIX C

Table E: Chemicals of Concern for Sources of Incidental Emissions of HAPs

Chemical Name	CAS Number	Chemical Name	CAS Number
Acetaldehyde	75-07-0	Isophorone diisocyanate	4098-71-9
Acrolein	107-02-8	Lead Acetate, as Pb *(64% lead)*	301-04-2
Acrylamide	79-06-1	Lead Phosphate, as Pb *(77% lead)*	7446-27-7
Acrylic acid	79-10-7	Maleic anhydride	108-31-6
Acrylonitrile	107-13-1	Manganese, elemental and inorganic compounds, as Mn	7439-96-5
Ammonia	7664-41-7	Mercury, as Hg, alkyl compounds	7439-97-6
Arsenic, elemental and inorganic compounds, as As	7440-38-2	Mercury, as Hg, aryl compounds	7439-97-6
Arsine	7784-42-1	Mercury, as Hg, inorganic forms including metallic mercury	7439-97-6
Benzene	71-43-2	Methyl hydrazine	60-34-4
Benzo(a)pyrene	50-32-8	Methyl isocyanate	624-83-9
Beryllium and beryllium compounds, as Be	7440-41-7	Methylene bisphenyl isocyanate (Methylene diphenyl isocyanate; MDI)	101-68-8
Bromine	7726-95-6	Methylene chloride (Dichloromethane)	75-09-2
Bromine pentafluoride	7789-30-2	Nickel and compounds, as Ni	7440-02-0
1,3-Butadiene	106-99-0	Nitric acid	7697-37-2
Cadmium and cadmium compounds, as Cd	7440-43-9	Octachloronaphthalene	2234-13-1
Carbon tetrachloride	56-23-5	Oxalic acid	144-62-7
Chlorine	7782-50-5	Pentachloronaphthalene	1321-64-8
Chlorine dioxide	10049-04-4	Pentachlorophenol (PCP)	87-86-5
Chlorine trifluoride	7790-91-2	Perchloroethylene (Tetrachloroethylene)	127-18-4
Chloroform	67-66-3	Phenylenediamine (mixtures and isomers)	106-50-3
Chromium (VI): Chromic acid mists and dissolved Cr (VI) aerosols, as Cr	7440-47-3	Phosphine	7803-51-2
Chromium (VI): compounds and particulates	7440-47-3	Phosphoric acid	7664-38-2
Cobalt, elemental, and inorganic compounds, as Co	7440-48-4	Phosphorus (yellow)	7723-14-0
Diborane	19287-45-7	Phosphorus pentachloride	10026-13-8
1,2-Dibromoethane (Ethylene dibromide; EDB)	106-93-4	Platinum, soluble salts, as Pt	7440-06-4
1,2-Dichloroethane (Ethylene dichloride; EDC)	107-06-2	Propylene dichloride (1,2-Dichloropropane)	78-87-5
Diglycidyl ether (DGE)	2238-07-5	Rhodium, soluble compounds, as Rh	7440-16-6
Ethylene oxide	75-21-8	Selenium and compounds, as Se	7782-49-2
Fluorine	7782-41-4	Sulfuric acid	7664-93-9
Formaldehyde	50-00-0	Tellurium and compounds, except hydrogen telluride, as Te	13494-80-9
Hexachlorobenzene (HCB)	118-74-1	Tetrafluoroethylene	116-14-3
Hexamethylene-1,6-diisocyanate (HDI)	822-06-0	Thallium, elemental and soluble compounds, as Tl	7440-28-0
Hydrazine and hydrazine sulfate	302-01-2	Tin organic compounds, as Sn	7440-31-5
Hydrogen bromide	10035-10-6	2,4-/2,6-Toluene diisocyanate (mixtures and isomers) (TDI)	584-84-9
Hydrogen chloride (Hydrochloric acid; Muriatic acid)	7647-01-0	Trichloroethylene (Trichloroethene)	79-01-6
Hydrogen cyanide	74-90-8	Trimellitic anhydride	552-30-7
Hydrogen fluoride (Hydrofluoric acid)	7664-39-3	Triorthocresyl phosphate	78-30-8
Hydrogen peroxide	7722-84-1	Tungsten, as W, soluble compounds	7440-33-7
Hydrogen sulfide	7783-06-4	Vinyl chloride	75-01-4
Indium	7440-74-6	m-Xylene-alpha,alpha'-diamine	1477-55-0
Iodine	7553-56-2		